

Iowa Department of Natural Resources
Wastewater Section
Construction Permit Application
SCHEDULE K2, Aerated Pond

DATE PREPARED	PROJECT IDENTITY				DNR USE	
DATE REVISED					PROJECT NO.	
					PERMIT NO.	

1. Design Basis

Flow, MGD	ADW	AWW-30	MWW	PHWW
BOD ₅ , #/day				

2. No. of soil borings taken _____ Data included in the _____
High groundwater elevation (MSL) _____

3. Top of dike elevation (MSL) _____ ft 100 year flood elevation (MSL) _____ ft

4.

<u>Pond Data</u>	<u>Cell No. 1</u>	<u>Cell No. 2</u>	<u>Cell No. 3</u>	<u>Cell No. 4</u>	<u>Total</u>
Surface area @ maximum depth (A)	_____	_____	_____	_____	_____
Maximum operation depth (ft)	_____	_____	_____	_____	_____
Minimum operation depth (ft)	_____	_____	_____	_____	_____
Effective storage volume (MG)	_____	_____	_____	_____	_____
Effective detention time (days)	_____	_____	_____	_____	_____
Air Requirements:					
Provided (ft ³ /#BOD)	_____	_____	_____	_____	_____
Provided (#O ₂ /#BOD)	_____	_____	_____	_____	_____
Required (#O ₂ /#BOD)	_____	_____	_____	_____	_____
Minimum D.O. level (mg/l)	_____	_____	_____	_____	_____
Freeboard @ maximum depth (ft)	_____	_____	_____	_____	_____
Top width of dike (ft)	_____	_____	_____	_____	_____
Inner embankment slope H/V	_____	_____	_____	_____	_____
Outer embankment slope H/V	_____	_____	_____	_____	_____
Type of inlet	_____	_____	_____	_____	_____
Top drawoff level (ft)	_____	_____	_____	_____	_____
Middle drawoff level (ft)	_____	_____	_____	_____	_____
Bottom drawoff level (ft)	_____	_____	_____	_____	_____

5. Aeration Equipment: Design Air Temperature _____ ° F to _____ ° F
Type _____ Manufacturer & Model _____
No. of Units _____ HP or CFM/unit _____ Total HP or CFM _____
K value _____ /day at design temperature _____ ° C
Is a layout of the aeration system given on Schedule H1? Yes ☐ No ☐
6. Is cold weather protection provided? _____ How? _____
7. Method of raw flow diversion to cells _____
8. Method of interconnection of cells _____
9. Provision to prevent drawoff of floating solids _____
10. Method of sampling _____
11. Type of flow measurement _____ Location _____
12. Fence Height _____ No. strands of barbed wire: Top _____ Bottom _____
13. Number of warning signs _____ Location _____
14. Will pond be pre-filled to two-ft. level? Yes ☐ No ☐
15. Maximum allowable leakage rate _____ in/day
Method of testing leakage rate _____
16. Are specifications included for:

a. Seeding	Yes <input type="checkbox"/>	No <input type="checkbox"/>
b. Soil sterilization	Yes <input type="checkbox"/>	No <input type="checkbox"/>
c. Pond bottom uniformity	Yes <input type="checkbox"/>	No <input type="checkbox"/>
d. Pond sealing	Yes <input type="checkbox"/>	No <input type="checkbox"/>
e. Erosion protection	Yes <input type="checkbox"/>	No <input type="checkbox"/>
17. Is service bypass provided? _____ Discharge to _____